

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 27 JUN 2006

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Applicant's or agent's file reference 22171.419	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US05/12796	International filing date (day/month/year) 15 April 2005 (15.04.2005)	Priority date (day/month/year) 16 April 2004 (16.04.2004)
International Patent Classification (IPC) or national classification and IPC IPC: H04Q 7/20(2006.01) USPC: 455/433,435.1,432.1,432.3		
Applicant NORTEL NETWORKS LIMITED		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

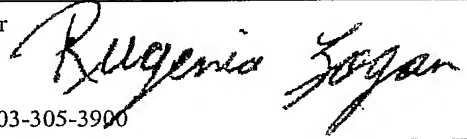
2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 16 February 2006 (16.02.2006)	Date of completion of this report 19 April 2006 (19.04.2006)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer George Eng Telephone No. 703-305-3900 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US05/12796

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed.
- ☒ the description:
pages 1-15 as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the claims:
pages NONE, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages 16A-18A, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the drawings:
pages 1-4, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US05/12796**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims <u>1-19</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-19</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-19</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-19 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the following limitations "prior to establishment of a bearer path between the serving legacy mobile station domain and a telephone network of the calling party".

----- NEW CITATIONS -----
NONE

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WHAT IS CLAIMED IS:

1. A method of providing call progress to a calling party, comprising:
receiving a circuit-switched call origination message in a home legacy mobile station domain,
5 wherein the circuit-switched call origination message specifies a destination terminal device having a directory number assigned with the home legacy mobile station domain;
identifying a serving legacy mobile station domain in which the terminal device is registered;
transmitting, from the home legacy mobile station domain to the serving legacy mobile station domain, a call origination message that requests the terminal device to a call with the calling party;
10 receiving, by the home legacy mobile station domain from the serving legacy mobile station domain, a first message that requests the home legacy mobile station domain to provide a call progress signal to the calling party prior to establishment of a bearer path between the serving legacy mobile station domain and a telephone network of the calling party; and
providing, by the home legacy mobile station domain, a first call progress signal to the calling
15 party.
2. The method of claim 1, wherein receiving the circuit-switched call origination message comprises receiving an Integrated Services User Part call origination message.
- 20 3. The method of claim 1, wherein transmitting the call origination message comprises transmitting a session initiation protocol INVITE message that allows for encapsulation of Integrated Services User Part information.
4. The method of claim 1, wherein receiving the first message comprises receiving a
25 Session Initiation Protocol 180 Ringing provisional response message.
5. The method of claim 1, further comprising receiving, by the home legacy mobile station domain from the serving legacy mobile station domain, a second message providing a request for the home legacy mobile station domain to discontinue the first call progress signal, wherein the serving
30 legacy mobile station domain sends the second message after receiving a paging response from the terminal device.
6. The method of claim 5, wherein receiving the second message comprises receiving a session initiation protocol provisional response message.
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7. The method of claim 6, further comprising providing, by the serving legacy mobile station domain, a second call progress signal to the calling party after the home legacy mobile station domain discontinues the first call progress signal.

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8. A computer-readable medium having computer-executable instructions for execution by a processing system, the computer-executable instructions for performing a method of providing call progress to a calling party, comprising:

5 instructions for interpreting a circuit-switched call origination message in a home legacy mobile station domain, wherein the circuit-switched call origination message specifies a destination terminal device having a directory number assigned to the home legacy mobile station domain;

instructions for identifying a serving legacy mobile station domain in which the terminal device is registered;

10 instructions for constructing and transmitting, from the home legacy mobile station domain to the serving legacy mobile station domain, a call origination message that requests the terminal device to join a call with the calling party;

instructions for receiving, by the home legacy mobile station domain from the serving legacy mobile station domain, a first message that requests the home legacy mobile station domain to provide a
15 call progress signal to the calling party prior to establishment of a bearer path between the serving legacy mobile station domain and a telephone network of the calling party; and

instructions for providing, by the home legacy mobile station domain, a first call progress signal to the calling party.

20 9. The computer-readable medium of claim 8, wherein the instructions for interpreting a circuit-switched call origination message comprise instructions for interpreting an Integrated Services User Part call origination message.

10. The computer-readable medium of claim 8, wherein the instructions for constructing and
25 transmitting the call origination message comprise instructions for constructing and transmitting a session initiation protocol INVITE message that allows for encapsulation of Integrated Services User Part information.

11. The computer-readable medium of claim 8, wherein the instructions for receiving the first
30 message comprise instructions that receive a session initiation protocol 180 Ringing provisional response message.

12. The computer-readable medium of claim 8, further comprising instructions for receiving and interpreting, by the home legacy mobile station domain from the serving legacy mobile station
35 domain, a second message providing a request for the home legacy mobile station domain to discontinue the first call progress signal, wherein the serving legacy mobile station domain sends the second message after receiving a paging response from the terminal device.

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13. The computer-readable medium of claim 12, wherein the instructions for receiving and interpreting the second message comprise instructions that receive and interpret a Session Initiation Protocol provisional response message.

14. The computer-readable medium of claim 13, further comprising instructions for providing, by the serving legacy mobile station domain, a second call progress signal to the calling party after the home legacy mobile station domain discontinues the first call progress signal.

15. A telecommunications system for connecting a circuit-switched calling party and a terminal device registered in a legacy mobile station domain, comprising:
a serving legacy mobile station domain in which the terminal device is registered; and
a home legacy mobile station domain having a directory number of the terminal device assigned thereto that receives a circuit-switched call origination message from the calling party and transmits a call origination message to the serving legacy mobile station domain that requests the terminal device to join a call with the calling party and that, in response to receipt of a first message from the serving legacy mobile station domain that requests the home legacy mobile station to provide call progress to the calling party prior to establishment of a bearer path between the serving legacy mobile station domain and a telephone network of the calling party, provides a first call progress signal to the calling party.

16. The telecommunications system of claim 15, wherein the circuit-switched call origination message comprises an Integrated Services User Part call origination message.

17. The telecommunications system of claim 15, wherein the call origination message transmitted from the home legacy mobile station domain to the serving legacy mobile station domain comprises a Session Initiation Protocol INVITE message.

18. The telecommunications system of claim 15, wherein the serving legacy mobile station domain comprises a serving mobile switching center emulation and the home legacy mobile station domain comprises a home mobile switching center emulation, and wherein the serving mobile switching center emulation transmits a second message to the home mobile switching center emulation that provides a request for the home legacy mobile station domain to discontinue the first call progress signal provided to the calling party.

19. The telecommunications system of claim 18, wherein the second message comprises a session initiation protocol provisional response message.

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